ABSTRACT OF THE DISCLOSURE

A layered network node of which a network it belongs is divided up into cells which are constituted by a plurality of nodes; the cells are defined as virtual nodes; if

5   links exist which connect the interiors of the virtual nodes and the exterior, contact points between them are defined as interfaces of the virtual nodes; the virtual network constituted by the virtual nodes is further divided up into cells and making them into virtual nodes; said virtual network is defined as a network of a higher level with respect to the initial virtual network; by performing said operation of division into cells and

10   making into virtual nodes once or a plurality of times, the layered network is constituted; path computation is performed from the source node to a destination node in a stepwise manner by dispersing it over the various layers.